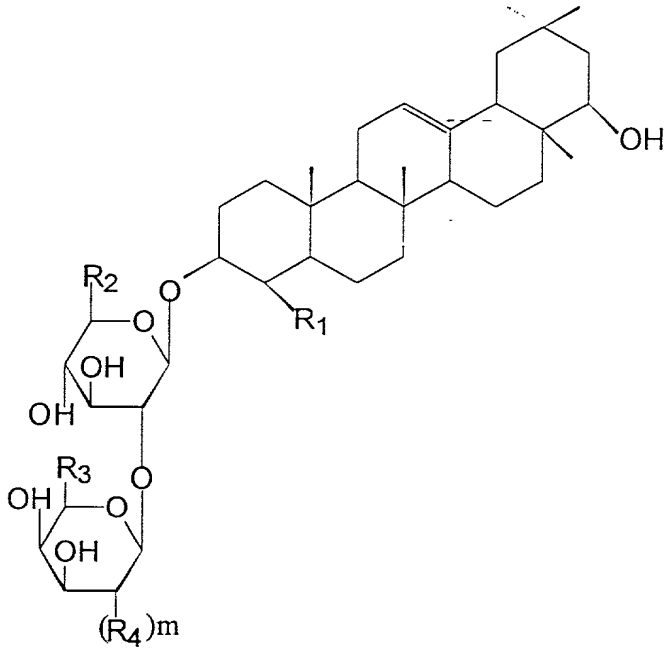
WHAT IS CLAIMED IS:

1. A saponin derivative useful for inhibiting sialyltransferase, which is the general formula (I) or the pharmaceutically acceptable salts and esters thereof:



wherein

R_1 is hydrogen, C_{1-8} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, or C_{1-8} alkylhydroxy;

R_2 is hydrogen, C_{1-8} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, COOH, $COOC_{1-8}$alkyl;

R_3 is C_{1-8} alkylhydroxy, hydrogen, C_{1-8} alkyl, C2-6 alkenyl or C_{2-6}

alkynyl;

R_4 is pentose or hexose residue or their derivatives; and

m is 0, 1, 2 or 3.

2. The saponin derivative of Claim 1, wherein R_1 is CH_2OH or CH_3; R_2 is COOH or COOMe; R_3 is CH_2OH or H; and R_4 is rhamnose or galactose.

3. The saponin derivative of Claim 1, wherein the saponin of formula (I) is selected from soyasaponin I, soyasaponin II, kaikasaponin III, soyasaponin V and soyasaponin I-Methyl.

4. The saponin derivative of Claim 1, which can be used in the treatment of the disease associated with sialyltransferase.

5. The saponin derivative of Claim 4, wherein the diseases is selected from inflammation, allergy, infection by pathogens, oncogenesis, cancer, metastasis and invasion.

6. The saponin derivative of Claim 5, wherein the disease is cancer, metastasis or invasion.

7. A sialyltransferase inhibitor agent, which comprises the saponin derivative as defined in claim 1.

8. The agent of Claim 7, wherein R_1 is CH_2OH or CH_3; R_2 is COOH or COOMe; R_3 is CH_2OH or H; and R_4 is rhamnose or galactose.

9. The agent of Claim 7, wherein the saponin of formula (I) is

selected from soyasaponin I, soyasaponin II, kaikasaponin III, soyasaponin V and soyasaponin I-Methyl.

10. A method of inhibiting sialyltransferase, which comprises using the saponin derivative as defined in claim 1.

11. A method of treating the conditions associated with the sialyltransferase, which comprises administration of a sialyltransferase inhibitor agent of the invention to a patient suffering from, or susceptible to, such a condition.

12. The method of claim 11, wherein the condition is selected from inflammation, allergy, infection by pathogens, oncogenesis, cancer, metastasis, and invasion caused by sialyltransferases.

13 The method of Claim 12, wherein the condition is selected from cancer, metastasis and invasion.